

LMRFC Fact Sheet #2

NWS Operations to Support Pat Harrison Waterways

The National Weather Service (NWS) is responsible for providing the Nation with weather and river forecasts and warnings to mitigate the loss of life and property. We rely on cooperators such as Pat Harrison Waterways for information and data and to disseminate the forecasts and warnings. To assist in this partnership, this document will define the NWS mission and then show how the NWS fulfills this mission in the Pat Harrison Waterways area and the Pascagoula River Basin.

NWS Mission and Structure

The NWS is part of the National Oceanic and Atmospheric Administration (NOAA) which is part of the Department of Commerce (DOC). The NWS has the responsibility for issuing forecasts and warnings to mitigate the loss of life and property for the citizens of the United States. The NWS fulfills this mission with 121 Weather Forecast Offices (WFOs) which are responsible for collecting data, analyzing mathematical computer models of the atmosphere, and preparing and disseminating weather watches and warnings and disseminating river forecast and warnings. There are 13 River Forecast Centers (RFC) that provide these offices with hydrologic forecasts to be used in the preparation of hydrologic watches and warnings.

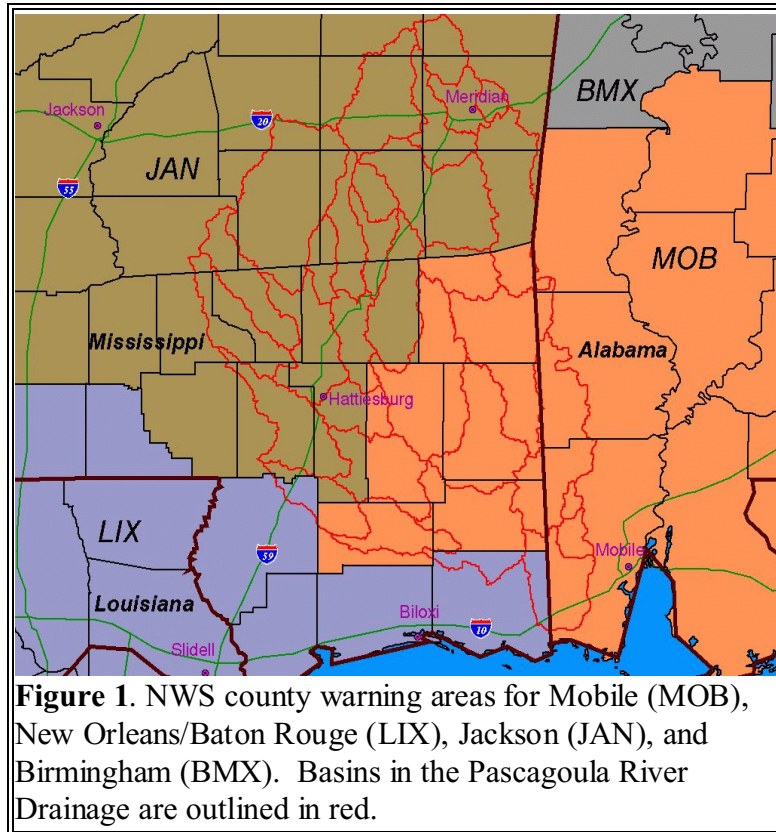
Weather Forecast Office (WFO) Operations

Each WFO is staffed with 20-30 people who continuously monitor the weather 24 hours per day, seven days per week. The WFO is managed and led by the Meteorologist in Charge (MIC) who is responsible for ensuring all products and services are provided in a timely, efficient, and effective manner. The Science and Operations Officer (SOO) is responsible for training the staff on the latest meteorological science and making sure it is used when preparing products. The Warning and Coordination Meteorologist (WCM) is the NWS interface with the public, news media, Emergency Managers, and Civil Defense Directors. There are five Forecasters in Charge (FIC) along with five other forecasters at each WFO. At least two forecasters are scheduled on shift at all times 24 hours per day, seven days per week. To augment the forecasters, there are also five hydrometeorological technicians (HMTs) and/or meteorological interns that assist forecasters in preparing products, collecting data, preparing data products, and broadcasting weather information, forecasts, and warnings.

WFOs Servicing the Pat Harrison Waterways - In the Pat Harrison Waterways and the Pascagoula River basin, WFOs Jackson (JAN), Mobile (MOB), and New Orleans (LIX) have responsibility for meeting the NWS mission. **Figure 1** shows the NWS County Warning Area (CWA) in southern Mississippi.

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WFO Meteorological Forecasts and Outlooks.

WFOs issue routine zone weather forecasts for their area of responsibility around 4:30AM, and 4:30PM with updates as needed. These forecasts provide information on the expected weather over the next seven days.

In addition, WFOs issue a varied range of other products that may be useful to the general public and our partners. The NOW (Short Term Forecast) product gives the status and a short term weather forecast of weather conditions. The AFD product (Area Forecast Discussion) communicates the meteorological reasoning and thought processes involved in making daily forecasts. The HWO (Hazardous Weather Outlook) is

prepared to indicate the type and time frame of hazardous weather or hydrologic events. The SPS (Special Weather Statement) is issued to inform the public of conditions where increased public awareness is desired about significant weather related events.

Severe Weather and Flooding. For their area, a WFO is responsible for issuing tornado, flash flood, and severe thunderstorm watches and warnings. Watches are issued when conditions *are favorable* for the formation of the weather event. Warnings are issued when a weather hazard is *imminent or is occurring*.

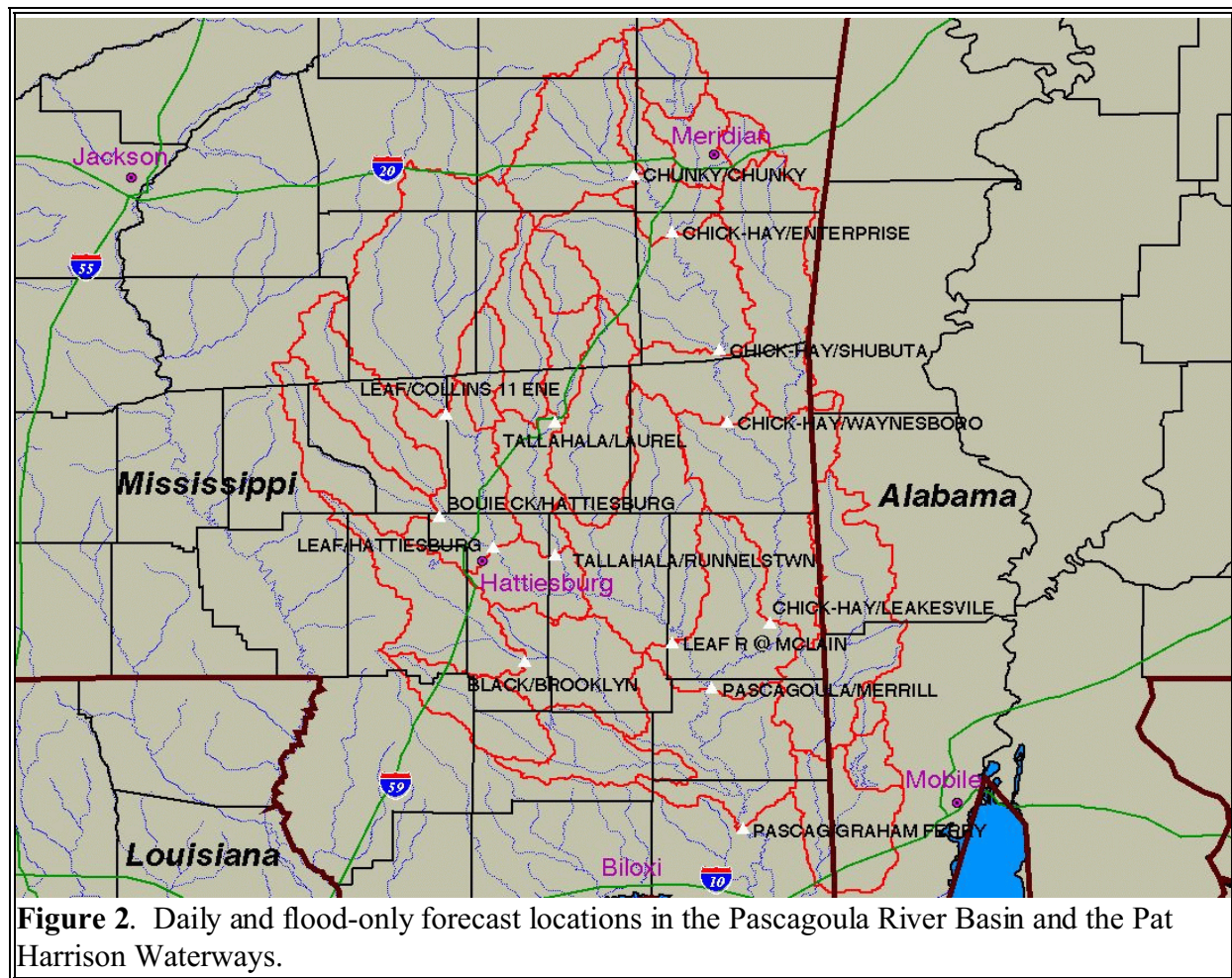
WFO Hydrologic Service Area (HSA) Responsibility in the Pascagoula System. All WFOs have Hydrologic Service Area (HSA) responsibility for their area. These responsibilities include the issuance of river and flood forecasts and warnings, working with local officials on flood problems, management of the hydrologic data collection network, and coordination with state and other federal agencies. Each WFO has either a Service Hydrologist (SH), a staff hydrologist dedicated full-time to managing the hydrologic services program at the WFO, or a Hydrologic Focal Point (HFP) who is a meteorologist who manages the program along with other meteorological staff duties. HFPs receive hydrologic support from a SH in a neighboring office. **Table 1** lists the WFOs that service Pat Harrison Waterways and the SH or HFP.

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| Table 1. Service Hydrologists/Hydrologic Focal Points that Support the Pat Harrison Waterways | | |
|--|--|--------------|
| WFO | Service Hydrologist/Hydrologic Focal Point | Phone Number |
| Jackson | Marty Pope (SH) | 601-965-4639 |
| Mobile | Keith Williams (HFP) | 334-633-2471 |
| New Orleans | Dave Smith (SH) | 985-645-0565 |

Forecasts are issued for 14 locations in the Pat Harrison Waterways District. These include routine daily forecasts at 12 locations. At the remaining two locations, forecasts are issued when the river is above or forecasted to be above flood stage. **Attachment 1** lists the Daily and Flood only forecast points in the Pascagoula River System and their servicing WFO Hydrologic Service Area. These locations are shown in **Figure 2**.



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The River Forecast Centers (RFC) prepare river and flood forecasts. The WFOs provide river/rainfall data and information to the appropriate RFC. The WFOs reviews the RFC forecast and disseminates them to the public through statements and warnings containing specific local impact information. At intermediate points between the official RFCs forecast points, the WFOs may develop and use local forecast procedures to create flood forecasts. WFOs also issue forecasts on small streams and headwaters that react and crest quickly, normally in less than 6 hours.

The WFO and Dam failures - The NWS is also responsible for the preparation and issuance of public warnings and watches related to eminent or occurring dam failures. The WFOs are responsible for issuance within their appropriate county warning areas. All dams in danger of failing should be reported to the appropriate WFO at the numbers listed in **Table 1** as soon as possible. The WFOs in coordination with the RFCs will issue products informing the public of the dangers of a dam failure.

WFO Web Pages. Hydrologic products are available from all WFOs that service Pat Harrison Waterways and from the LMRFC. The URLs are listed in Table 2.

| Table 2. NWS WFO/RFC webpage URLs | |
|--|--|
| Office | URL |
| WFO Jackson | www.srh.noaa.gov/jan/ |
| WFO Mobile | www.srh.noaa.gov/mob/ |
| WFO New Orleans | www.srh.noaa.gov/lix/ |
| LMRFC | www.srh.noaa.gov/lmrfc/ |

River Forecast Centers (RFC) Operations

The Lower Mississippi River Forecast (LMRFC) in Slidell, LA , is responsible for preparing hydrologic forecasts in Mississippi including the Pat Harrison Waterways District. The LMRFC has a staff of 16. The RFC is managed and led by the Hydrologist in Charge (HIC) who provides managerial and technical oversight for all RFC activities. The Development and Operations Hydrologist (DOH) is responsible for training and providing supervision for the implementation of new technologies and daily forecast operations. There are four Senior hydrologists which lead the daily forecast operations and provide forecast expertise to other members of the staff. Six additional hydrologists perform daily hydrologic operations of the RFC, including both hydrologic forecasting and operational support. The Senior Hydrometeorological Analysis and Support (HAS) person provides overall program leadership of hydrometeorological activities. There are 2 journeyman HAS forecasters who assess the hydrometeorological situation and briefs the staff

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during the day on the latest meteorological developments vital to hydrologic operations. They also assimilate and quality control hydrometeorological data. Forecasts are provided for the Pascagoula River System by the LMRFC.

RFCs run hydrologic computer models to prepare river and flood forecasts. These forecasts are disseminated to the appropriate WFO, who issue the products directly to the public. RFCs also support the WFOs with hydrologic expertise when local flood problems arise and assist in coordination efforts with external agencies. LMRFC is routinely open from 6AM to 10PM daily and extends to 24-hour operations during significant flooding as needed. The phone number to reach LMRFC is 985-641-4343.

RFC Web Pages - LMRFC provides all forecasts and most of the hydrologic data used in forecast preparation on its Internet website listed in **Table 2**.

| Attachment 1. NWS Forecast Points in the Pat Harrison Waterways | | |
|--|----------------------|----------------------|
| Location | NWS 5-char id | Forecast Type |
| WFO Jackson | | |
| Leaf River at Collins | CLSM6 | Daily |
| Bouie Creek at Hattiesburg | HBGM6 | Flood Only |
| Leaf River at Hattiesburg | HATM6 | Daily |
| Tallahala Creek at Laurel | LURM6 | Daily |
| Black Creek at Brooklyn | BKNM6 | Daily |
| Chunky River at Chunky | CKYM6 | Daily |
| Chickasawhay River at Enterprise | ENSM6 | Daily |
| Chickasawhay River at Shubuta | SHBM6 | Daily |
| WFO Mobile | | |
| Tallahalla River at Runnelstown | RNTM6 | Flood Only |
| Leaf River at McLain | MCLM6 | Daily |
| Chickasawhay River at Waynesboro | WYNM6 | Daily |
| Chickasawhay River at Leaksville | LEKM6 | Daily |
| Pascagoula River at Merrill | MRRM6 | Daily |
| WFO New Orleans | | |
| Pascagoula River at Grahams Ferry | PGFM6 | Daily |

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